Protocol Information

Dave Skinner
PMC Farm Manager
Pullman Plant Materials
Center
Room 211A Hulbert Hall
WSU
Pullman,
Washington 99163-6211

509-335-9689 509-335-2940 Fax abbie@wsu.edu



Pullman Plant Materials Center

Pullman, Washington

Family Scientific Name: Poaceae

Family Common Name: Grass

Scientific Name: Deschampsia elongata (Hook.)

Munro ''

Common Synonym: ' '

Common Name: Slender hairgrass

Species Code: **DEEL**

Ecotype: near Albion, WA

General Distribution: Western North America from

Alaska east to Alberta and

south to New Mexico

(Hitchcock & Cronquist 1973). Mean annual precipitation range is from 10-24 inches (USDA NRCS 2006). It may be found in moist meadows and along streams (Hitchcock & Cronquist 1971, Mohlenbrock

undated). In eastern

Washington it may also occur on drier soils (Piper & Beattie 1914, St. John 1963). Wetland

indicator status is FACW- (US Fish and Wildlife Service 1988).

Known Invasiveness:

Propagation Goal: Plants

Propagation Method: **Seed**

Product Type: Container (plug)

Stock Type: 10 cu. in.

Target Specifications: **Tight root plug in container**.

Propagule Collection: Seed is collected when the

inflorescence begins to dry and the seed is in the soft to hard dough stage but before it

shatters from the

inflorescence. Seed can be

stripped from the inflorescence or the inflorescence can be

clipped from the plant.

Propagule Processing: Small amounts are rubbed to

free the seed, then cleaned with an air column separator.

Larger amounts can be

threshed with a hammermill. then cleaned with air screen equipment. Clean seed is stored in controlled conditions at 40 degrees Fahrenheit and 40% relative humidity. Seed is greyish tan in color and small.

1,860,000 seeds/lb (USDA NRCS 2006).

Pre-Planting Treatments: Laboratory germination is best with gibberellic acid and a 5 day prechill at 5 degrees centigrade (Chirco & Turner 1986).

> Seed germinates readily without pretreatment. Trials conducted at the PMC comparing untreated seed with cold, moist stratified seed showed no benefit from stratification. Seeds given 30 days on cold, moist stratification began germinating a few days earlier than untreated seed, but took longer to reach maximum germination levels.

Growing Area Preparation/ Annual Practices for Perennial Crops: In January seed is sown in the

greenhouse in 10 cu. in. Ray Leach Super cell conetainers filled with Sunshine #1 and covered lightly. Head space of 1/4 to 1/2 inch is maintained in conetainers to allow deep watering. A thin layer of pea gravel is applied to prevent seeds from floating. Conetainers are watered deeply.

Establishment Phase: Medium is kept moist until germination occurs.

> Germination usually begins in 5 days and is complete in 7

days.

Length of Establishment Phase: 1 week

Active Growth Phase: Plants are watered deeply

every other day and fertilized

once per week with a complete, water soluble fertilizer containing micro-

nutrients.

Length of Active Growth Phase: 3 months

Hardening Phase: Plants are moved to the cold frame in late March or early April, depending on weather conditions. They are watered every other day if the weather is cool, and every day during hot, dry spells.

Length of Hardening Phase: 2-4 weeks

Harvesting, Storage and Shipping:

Length of Storage:

Outplanting performance on typical sites: Transplanting is done in early

May by using an electric drill and portable generator to drill 1.5 inch diameter holes at the

planting site.

Survival in seed increase plantings without competing vegetation approaches 100%. Transplanting into sites with existing vegetation may reduce survival and vigor depending

on weather conditions following planting.

Plants will flower and produce

seed the same season.

Other Comments: No insect or disease problems

have been noted.

Plants probably can be

propagated by division. This method should only be used

for plants growing in

cultivation. Plants should not be dug up from stands in the

wild.

References: Chirco, Ellen, and Terry Turnoer. 1986. Species without **AOSA Testing Procedures. The Newsletter of the Association** of Official Seed Analysts 60 (2):2-66. Available online at http://www.aosaseed.com/ Species%20wo%20AOSA% 20list%20plus%20adds.pdf. Updated November 11/10/03. Accessed 2/16/06.

> Hitchcock, A.S. 1971. Manual of the Grasses of the United States. 2nd edition. Revised by Agnes Chase. Dover Publications, Inc., New York, NY. 2 vol.

Hitchcock, C. Leo, and Arthur Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. Seattle, WA. 730 pp.

Mohlenbrock, Robert H. Undated. Western Wetland Flora: A Field Office Guide to Wetland Species. USDA, NRCS Western Region. Sacramento, CA.

Piper, C.V., and R.K. Beattie. 1914. The Flora of Southeastern Washington and Adjacent Idaho. Lancaster, PA. Press of the New Era Printing Company, 296 p.

St. John, Harold. 1963. Flora of Southeastern Washington and of Adjacent Idaho. 3rd edition. Outdoor Pictures. Escondido, CA. 583 pp.

USDA, NRCS. 2006. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

US Fish and Wildlife Service. 1988. National list of vascular plant species that occur in wetlands. US Fish & Wildlife Service Biological Report 88 (24).

Citation:

Skinner, David M. 2006. Propagation protocol for production of container *Deschampsia elongata* (Hook.) Munro ' ' plants (10 cu. in.); Pullman Plant Materials Center, Pullman, Washington. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 14 March 2006). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.